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RACIAL INFLUENCE IN THE ETIOLOGY OF TRACHOMA.

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No apology is needed to practical ophthalmologists for bringing forward even the most insignificant suggestion as to the nature, etiology, or treatment of so intractable and disastrous a malady as trachoma; and the Committee of Arrangements of the Section of Ophthalmology of the International Congress but echoed this sentiment that prevails among the profession in making trachoma one of the principal themes of discussion. Vast as is the literature upon the subject, there is still lacking that which gives us grounds for positive opinions regarding the cause, pathology, and therapeutics of the disease.

The special point that I wish to emphasize and to which I would direct the careful attention of the profession is the essentially dyscrasic nature of the

[1] Read before the Ophthalmological Section of the Tenth International Medical Congress, held in Berlin, August 3–9, 1890.

affection. This feature of trachoma seems to have been almost ignored by the majority of those who have dealt with the subject. The oversight can probably be accounted for by the great impetus given to the study of pathological anatomy in all its ramifications within the last three decades, and which has temporarily obscured that larger and more comprehensive view obtained by a study of the disease from the standpoint of its clinical manifestations and its natural history.

We have had many sections of the trachomatous conjunctiva, and bacteriological investigations without number, and yet it cannot be said that there is anything approaching unanimity of opinion as to the pathology or treatment of a disease which, probably next to ophthalmia neonatorum, produces more blindness than any other affection to which the eye is liable.

It is far from my purpose to intimate that these investigations have been valueless. Besides the accurate and positive information that they have given us as to the changes in the conjunctival tissue as a result of the disease, they have had, I think, the negative value of causing us to look outside of the eye for the original cause of the affection.

Trachoma is generally admitted to be an affection *sui generis*. Its course, and particularly its results, are such as are found in no other inflammatory affection of the conjunctiva. The total destruction of the mucous membrane and its conversion into cicatricial tissue are consequences that follow no other inflammation, no matter how severe or how long continued, except, probably, tubercular

inflammation. In its course, behavior, and results the dyscrasia bears a stronger resemblance to tuberculosis than to any other morbid process of which we have knowledge, and that great clinician, v. Arlt, in 1854, first noticed the similarity of the two diseases.

Among the more recent changes of opinion, however, toward a wider conception of the nature of the morbid process, was the study of the geographical distribution of the disease by Dr. Chibret,[1] who honored the Congress with a contribution on the subject. The investigation of Farrovelli and Gazzaniga[2] on the geographical distribution of trachoma in the Province of Pavia, and those just published by Reisinger[3] on its distribution in Bohemia, are confirmatory in a general way of the results obtained by Chibret, who found that an altitude of one thousand feet gave a comparative freedom from the disease, and facilitated its cure when present. Other minor contributions from competent persons have confirmed these observations.

At the meeting of the International Ophthalmological Congress, held in New York in 1876, I called attention, for the first time, to the fact that the negro race in the United States seems to enjoy an immunity from trachoma. Further and careful observation among a large negro population since then have confirmed that statement in full. The material of my clinic in Washington is largely composed of negroes either pure or of mixed blood,

[1] Comp. Rend. Copenhagen Congress, 1884.
[2] Annali di Ottalmologia, An. xvii. Fasc. 1.
[3] Graefe's Archiv. B. xxxvi., Ab. 1, 1890.

and among about 6000 cases of eye-disease available for statistical purposes in that race which I have examined, I found but a single instance of genuine, unmistakable trachoma, and three or four of doubtful character. Occasional cases of this disease have undoubtedly been seen in negroes in America, but the experience of such careful observers as White, of Richmond, Va.; Chisolm, of Baltimore; Baldwin, of Alabama, and many others who have spoken to me verbally on the subject, is in all essential particulars in accord with my own.

This immunity cannot be attributed to elevation, since all the places mentioned are at or near the sea level; nor to good hygienic surroundings, for the negroes, with the exception of some of the better class, live in over-crowded rooms, with every possible facility for contagion and the spread of infectious disease. The only factor that can be considered is that of race, with its powerful influence in predisposing to or giving immunity from the operation of morbid processes. The influence of race is marked, and I presume will not be doubted by anyone. The negro is known to be less susceptible to malarial fevers and to scarlet fever than is his white brother, but more prone to strumous or scrofulous affections of all kinds. The Hebrew is generally supposed to be particularly liable to glaucoma, while the Irish are peculiarly susceptible to trachoma, and wherever they go they carry this predilection with them, even when the conditions of life are infinitely better than those of their native country.

My first acquaintance with trachoma and its results was in a part of Eastern Tennessee which has

an altitude of from eleven hundred to fourteen hundred feet. There, among a force of workmen, chiefly composed of Irishmen and negroes, the Irish laborers would have trachoma, often in its worst form, while the negroes associated with them never had the disease. So that an altitude of seven hundred and fifty feet more than is sufficient to give immunity in Europe did not give security to these Irishmen. Farrovelli and Gazziniga also found that altitude was not the only factor, and that trachoma occurred in what was otherwise a very healthy locality.[1]

All of these observations point, it seems to me, to the fact that there must exist in the form of a dyscrasia a predisposition to the disease, just as tuberculosis almost always requires for its development the existence of what is generally known as a "tuberculous predisposition." Trachoma must be something more than a local disease, and it cannot be a purely contagious affection. In fact, there are some who doubt whether it is contagious at all.[2]

This diathesis, while it bears considerable resemblance in certain of its manifestations to tuberculosis and scrofula, must be quite distinct from them in other very important characteristics, for the negro race is very subject to the ravages of both scrofula and tuberculosis, scrofulous affections of the cornea

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[1] Professor George C. Kober, of Washington, who has had an extensive experience in Northern California, informs me that he has frequently seen trachoma at an altitude of 4700 feet, particularly among the Indians.

[2] Vanneman, Annales d'Ocul., January and February, 1889.

and conjunctiva forming a large percentage of their ocular diseases.

The influence of this view of the pathology of trachoma upon our therapeutics must, it seems to me, be radical. We should cease to treat merely the local manifestation of the disease and should turn our attention to the diathesis lying back of it. We are not yet sufficiently acquainted with the diathesis to enable us to indicate more than a few points that should be considered in its further study. Among these, climate and particularly altitude seem to be the most important, though it is probable that there are factors other than climate and altitude which will have to be considered. If these views are correct, the placing of trachomatous patients among the best possible hygienic surroundings becomes a matter of necessity.

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